





### **CURRICULUM VITAE (CVA)**

Part A. PERSC	NAL INFORMATION	CV date	2	
First name	Marta			
Family name	Marcos Moreno			
Gender	Female	Birth date	03/11/1975	
ID number	43092375N			
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ORCID		0000-0001-9975-	0000-0001-9975-5013	

A.1. Current position

Position	Profesora Titular de Universidad (Ass. Prof.)			
Initial date	10/2019			
Institution	University of the Balearic Islands (UIB)			
Department/Center	Dep. of Physics and Mediterranean Institute for Advanced Studies			
Country	Spain	Tel. number	971611337	
Key words	Physical oceanography; climate change; sea level; extreme events			

A.2. Previous positions (research activity interruptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
03/2017-09/2019	Profesora Contratada Doctora/UIB
12/2009-03/2017	"Ramón y Cajal" fellow (5 yrs+2yrs extension+16 weeks maternity leave)/IMEDEA(UIB)
01/2008-11/2009	"Juan de la Cierva" fellow/IMEDEA(UIB) (+16 weeks maternity leave)
06/2006-11/2007	Postdoctoral contract (Ministry of Education)/NOC/UK
03/2005-03/2006	Postdoctoral contract/University of La Rochelle/France

#### A.3. Education

PhD, Licensed, Graduate	University/Country	Year
License in Physics	UIB/Spain	1998
PhD in Sciences	UIB/Spain	2004

### Part B. CV SUMMARY (max. 5000 characters, including spaces)

Marta Marcos is an associate professor at the Department of Physics of the University of the Balearic Islands and a researcher at the Mediterranean Institute for Advanced Studies (IMEDEA), a joint centre between the UIB and the Spanish Research Council (CSIC). She currently has three 6-year research terms (most recent 2013-2018) and three 5-years teaching terms (also until 2018) positively evaluated. Her main research interests, during and after her PhD, have always been directly linked to sea level variability, from high frequency time scales up to long-term climatic changes. After she got her PhD in 2004, she has been a postdoctoral researcher at the University of La Rochelle in France (2005-2006), funded by the French administration, and at the National Oceanography Centre (NOC) in the UK (2006-2007), funded by a postdoctoral fellow of the Spanish Ministry of Education. In 2008 she joined IMEDEA as a "Juan de la Cierva" fellow and during 2009- 2017 she was a "Ramón y Cajal" fellow (5 years contract plus 2 more of extension) also at IMEDEA. In 2018 she was granted a



"Salvador de Madariaga" fellowship for a 6-month sabbatical visit to the University of York (UK).

She has published 120 papers in JCR journals, of which 75% are highly ranked journals (Q1) and she has an h-index of 37 with over 4200 citations (source Scopus). She has also coauthored other 18 peer-reviewed publications not included in the SCI. Most of this scientific productivity is related to sea level variability and change. Part is aimed at characterising the observed spatio-temporal patterns in this essential climate variable from in-situ and remote observations, complemented with numerical ocean models. She has also contributed to explain the physical mechanisms that drive sea level changes<sup>9</sup>, with a special focus on the Mediterranean Sea. She has co-authored highly cited papers on the quantification of global and regional mean sea level change since the pre-industrial era<sup>6</sup> and on the role of climate vs non-climate contributions to sea level trends<sup>7</sup>. She has also worked on extreme weather events applied to coastal sea levels<sup>8,10</sup>. In this line, she is one of the core members of the team that compiles and distributes the major global dataset of high-frequency sea level observations (www.gesla.org). The network of collaborations is translated into a large number of co-authors from different institutions, mostly international, as well as in publications from community efforts<sup>4</sup>. Resulting from the intense research activities, she has participated in 160 contributions to conferences (half of which have been oral presentations) and has delivered 16 keynote

She has participated in 8 research projects with national funding (since 2015 in three acting as coordinating PI), 7 international projects (including 2 as PI) and 11 smaller research actions with either national or local funding (6 as PI). Besides, she has taken part in 6 contracts with companies and public entities.

She has developed teaching activities during the doctoral period as well as during the last 10 academic courses, both to undergraduate and master in Physics at UIB. She has supervised 3 PhD theses to completion and is currently supervising two others, expected in 2024 and 2025; she has also supervised several MSc thesis and other MSc research works, primarily from foreign MSc visiting students.

She is a member of the WCRP Grand Challenge on Regional Sea Level Change and Coastal Impacts, a member of the EuroGOOS Task Team for tide gauges, a contributing author to the Intergovernmental Panel on Climate Change Sixth Assessment Report for Working Group 1 and a member of the Knowledge Hub on Sea Level Rise, a joint initiative of JPI Climate and JPI Oceans. She has also served as member of PhD committees (national and international) and evaluation panels, for both personnel and project calls, including evaluation of national (ANEP) projects as well as other regional and international agencies. She is a regular reviewer in international journals, including some highly ranked and editor in chief in Frontiers in Marine Science in Coastal Ocean Processes section.

She has been actively engaged with the organization of seminars and international conferences and dissemination activities. She has organised international workshops at UIB (with over 100 attendees) and has been convening sessions at the annual assembly of EGU and AGU (in EGU regularly since 2013). She takes part in media interviews for research dissemination. She has also participated in field work, including 6 oceanographic surveys and a coastal field trip acting as coordinator.

### Part C. RELEVANT MERITS

#### C.1. Publications

- 1. M. Marcos, B. Puyol, A. Amores, B. Pérez Gómez, M. Á. Fraile, S. A. Talke (2021). Historical tide gauge sea-level observations in Alicante and Santander (Spain) since the 19th century. Geosc. Data J., DOI: 10.1002/gdj3.112
- 2. Calafat, F.M. and M. Marcos (2020). Probabilistic reanalysis of storm surge extremes in Europe. Proc. Nat. Ac. Sciences, doi: 10.1073/pnas.191304911
- 3. M. Marcos, J. Rohmer, M. Vousdoukas, L. Mentaschi, G. Le Cozannet, A. Amores. (2019) Increased extreme coastal water levels due to the combined action of storm surges and wind-waves. Geophysical Research Letters, doi: 10.1029/2019GL082599
- 4. A. Cazenave et al (52/92) (2018) Global sea-level budget 1993–present. Earth Syst. Sci. Data, doi: 10.5194/essd-10-1551-2018



- 5. M. Marcos, P. L. Woodworth (2017) Spatio-temporal changes in extreme sea levels along the coasts of the North Atlantic and the Gulf of Mexico. Journal of Geophysical Research Oceans, doi: 10.1002/2017JC013065.
- 6. S. Dangendorf, M. Marcos, G. Wöppelmann, C. P. Conrad, T. Frederikse, R. Riva (2017) Reassessment of 20th century global mean sea level rise. PNAS, doi: 10.1073/pnas.1616007114
- 7. G. Woppelmann, M. Marcos (2016) Considering vertical land motion in understanding sea level change and variability. Reviews of Geophysics, 54, doi:10.1002/2015RG000502
- 8. M. Marcos, F. M. Calafat, A. Berihuete, S. Dangendorf (2015) Long term variations in global sea level extremes. Journal of Geophysical Research-Oceans, 120
- 9. M. Marcos, A. Amores (2014) Quantifying anthropogenic and natural contributions to thermosteric sea level rise. Geophysical Research Letters, 41
- 10. Marcos, M.; Tsimplis, M.N.; Shaw, A.G.P. (2009) Sea level extremes in Southern Europe. Journal of Geophysical Research-Oceans, 114, doi:10.1029/2008JC004912

#### C.2. Conferences

160 meeting contributions (16 invited), with a ~50% talks and posters, and more 90% internationals. The list contains the 10 most recent invited talks to conferences/seminars.

- 1. Observations and drivers of coastal sea level extremes. Invited seminar at the Dept. Meteorology, University of Reading (UK), 2020
- 2. Impacts of mean sea-level rise and marine extremes on islands. EGU General Assembly 2020, Natural Hazards Division. Virtual, 2020
- 3. Global to local coastal modelling as a climate service for coastal adaptation. Workshop on WCRP Grand Challenge and Climate Services. Orléans (France) 2019
- 4. Observed changes of coastal sea level. "Understanding the relationship between coastal sea level and large-scale ocean circulation" ISSI Workshop. Bern (Switzerland) 2018
- 5. Coastal impact Model Inter-comparison Project (CoastMIP). The Coordinated Ocean Wave Climate Project 2018 Workshop. Paris (France) 2018
- 6. Progress in reconstructing long term global sea level changes. Ocean Surface Topography Science Team Meeting. La Rochelle (France) 2017
- 7. Drivers of the spatial and temporal variability in sea level extremes. WCRP/IOC Conference 2017. Regional sea level changes and coastal impacts. New York (USA) 2017
- 8. Vertical crustal motions from GPS & INSAR. Forum "Monitoring coastal zones evolution under various forcing factors using space-based observing systems". Bern (Switzerland) 2016
- 9. L'évolution des événéments extrêmes du niveau de la mer. Journées REFMAR. Paris (France) 2016
- 10. Anthropogenic contribution to 20th century sea level rise. Integrative Study of Sea Level Budget. International Space Science Institute, Bern (Switzerland), 2015

### C.3. Research projects (last 10 years)

# National projects

1. Title: DEcadal predictability of coastal exTremE sea levels under ClimaTe change (DETECT)

Program: Programa Estatal de I+D+i Generación de Conocimiento

Funding body: Ministerio de Ciencia, innovación y universidades. Amount: 106k€

Duration: 2022-2025

Role: PI



2. Title: Mediterranean sheltered beach MOrphodynamics in the face of Climate ChAnge (MOCCA)

Program: Programa Estatal de I+D+i Orientada a los Retos de la Sociedad Funding body: Ministerio de Ciencia, innovación y universidades. Amount: 90k€

Duration: 2019-2022 Role: PI coordinator

**3.** Title: Impactos medioambientales y económicos del cambio climático sobre las costas y puertos españoles (CLIMPACT)

Program: Programa Estatal de I+D+i Orientada a los Retos de la Sociedad Funding body: Ministerio de Economía y Competitividad. Amount: 84.700€

Duration: 2015-2018 Role: PI coordinator

## **International projects**

1. Title: LIFE Adapt Cala Millor

Company/Funding body: EC through LIFE-2021-SAP-CLIMA (LIFE Subprogramme Climate

Action. Amount: 207k€ (Spanish project only)

Duration: 2022-2027

Role: co-PI

**2.** Title: INtegrating SEA-level Projections in climate services for coastal adaptaTION (INSEAapTION)

Company/Funding body: Ministerio de Economía y Competitividad a través de Acciones

Conjuntas de Programación Internacional. Amount: 107k€ (Spanish project only)

Entities: UIB, BRGM, Global Climate Forum, Creocean, Univ. Utrecht, Univ. La Rochelle

Duration, from: 2017 to: 2020

Role: National Pl

**2.** Title: Towards a Unified Sea Level Record: Assessing the Performance of Global Mean Sea Level Reconstructions from Satellite Altimetry, Tide Gauges, Paleo-Proxies and Geophysical Models.

Funded by International Space Science Institute. Amount: ~25k€

Duration, from: 2017 to: 2018

Role: co-PI

# C.4. Contracts, technological or transfer merits

1. Title: Coastal Risk Analyses in the Balearic Islands induced by Climate Change

Funding body: DG Energy and Climate Change, Gov. of the Balearic Islands, through Balearic

Islands Coastal Observing and Forecasting System

Duration: 2018-21, Amount: ~200k€, Role: Participant

**2.**Title: Estudio del aumento del nivel medio del mar y de los extremos marinos sobre las costas de Águilas y Cartagena considerando la información generada por los mareógrafos de Cartagena y Alicante

Funding body: Comunidad Autónoma de la Región de Murcia.

Duration: 2018, Amount: 10.000€, Role:PI

3. Title: Convenio para el desarrollo, validación y aplicación de modelos oceánicos regionales

Empresa/Funding body: Puertos del Estado. Amount: 150.000,00 €

Duration, from: 2009 to: 2012, Role: Participant